

genus. However, an examination of the pollen mother cells of *E. glyptosperma* Greene has shown that it has a haploid number of 7, a number new to this genus.

All of the problems in *Eschscholtzia* cannot be solved by cytological observations, but these examples indicate that they will prove to be of great value in indicating specific limits in this genus.

SPECIMENS EXAMINED CYTOLOGICALLY

- E. caespitosa*: Davy Brown Camp, San Rafael Mts., Santa Barbara Co. *Lewis*, April, 1950.
E. glyptosperma: Silver Lake-Cave Springs road, Avawatz Mts., San Bernardino Co. *Ball* 716.
E. minutiflora: U. S. Highway 60, 5 mi. west of road to Cottonwood Springs, Riverside Co. *Lewis* and *Ernst*, March 26, 1949. 1 mi. south of Atolia, San Bernardino Co. *Lewis*, April 1950.
E. Parishii: U. S. Highway 60, 5 mi. west of road to Cottonwood Springs, Riverside Co. *Lewis* and *Ernst*, March 26, 1949. Joshua Tree National Monument. *Lewis*, April, 1949.

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 FEDDE, F. 1909. Papavaraceae in A. Engler, Das Pflanzenreich. IV (104): 144-202. Leipzig.
 GREENE, E. L. 1905. Revision of *Eschscholtzia*. Pittonia 5: 205-293.
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 ———. 1925. Manual of the Flowering Plants of California. Berkeley.
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NOMENCLATURAL RECOMBINATIONS IN IDAHO PLANTS

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Looking forward to the publication of a "Flora of Idaho" this summer (1951), I am making the following nomenclatural recombinations separate from this book.

ERYTHRONIUM GRANDIFLORUM Pursh var. *idahoense* (St. John & G. N. Jones) comb. nov. *E. idahoense* St. John and G. N. Jones, Res. Stud. St. Coll. Wash. 1: 91. 1929.

ERIOGONUM CAESPITOSUM Nutt. var. *acaule* (Nutt.) comb. nov. *E. acaule* Nutt. Jour. Acad. Phila. Ser. 2, 1: 160. 1848.

POLYGONUM BUXIFORME Small var. *montanum* (Small) comb. nov. *P. douglasii montanum* Small, Mem. Dept. Bot. Columbia Coll. 1: 118. 1895.

POLYGONUM HETEROPHYLLUM Lindm. var. *rubescens* (Small) comb. nov. *P. rubescens* Small, Bull. Torrey Club 33: 56. 1906.

CLAYTONIA fontana (L.) comb. nov. *Montia fontana* L. Sp. Pl. 87. 1753.

ARENARIA CAPILLARIS Poir. var. *americana* (Maguire) comb. nov. *A. capillaris* Poir. subsp. *americana* Maguire, Bull. Torrey Club 74: 41. 1947.

DELPHINIUM ANDERSONI Gray var. *cognatum* (Greene) comb. nov. *D. cognatum* Greene, Pittonia 3: 14. 1896.

DELPHINIUM DIVERSIFOLIUM Greene var. *Harneyense* (Ewan) comb. nov. *D. diversifolium* Greene subsp. *Harneyense* Ewan, Univ. Colo. Stud. D. 2(2): 115. 1945.

DELPHINIUM OCCIDENTALE (Wats.) Wats. var. *cucullatum* (Nels.) comb. nov. *D. cucullatum* A. Nels. Bull. Torrey Club 27: 262. 1900.

ERYSIMUM CAPITATUM (Dougl.) Greene var. *amoenum* (Greene) comb. nov. *Cheiranthus nivalis amoenus* Greene, Pittonia 3: 137. 1896.

ERYSIMUM CAPITATUM (Dougl.) Greene var. *argillosum* (Greene) comb. nov. *Cheiranthus argillosus* Greene, Pittonia 3: 136. 1896.

ERYSIMUM CAPITATUM (Dougl.) Greene var. *perenne* (Wats.) comb. nov. *E. asperum* var. *perenne* S. Wats. ex Coville, Proc. Biol. Soc. Wash. 7: 70. 1892.

AMELANCHIER ALNIFOLIA Nutt. var. *oreophila* (A. Nels.) comb. nov. *A. oreophila* A. Nels. Bot. Gaz. 40: 65. 1905.

FRAGARIA VIRGINIANA Duchesne var. *ovalis* (Lehm.) comb. nov. *Potentilla ovalis* Lehm. Delect. Sem. Hort. Hamb. 1849: 9. 1849.

FRAGARIA VESCA L. var. *bracteata* (Heller) comb. nov. *F. bracteata* Heller, Bull. Torrey Club 25: 194. 1898.

RUBUS IDAEUS L. var. *melanolasius* (Focke) comb. nov. *R. melanolasius* Focke, Abh. Naturw. Ver. Bremen 13: 469. 1896.

LATHYRUS PAUCIFLORUS Fern. var. *utahensis* (Jones) comb. nov. *L. utahensis* Jones, Proc. Calif. Acad. Ser. 2. 5: 678. 1895.

LUPINUS ARGENTEUS Pursh var. *Macounii* (Rydb.) comb. nov. *L. Macounii* Rydb. Bull. Torrey Club 34: 42. 1907.

OXYTROPIS BESSEYI (Rydb.) Blank. var. *argophylla* (Rydb.) comb. nov. *Aragallus argophyllus* Rydb. Mem. N. Y. Bot. Gard. 1: 255. 1900.

OXYTROPIS CAMPESTRIS (L.) DC. var. *Cusickii* (Greenm.) comb. nov. *O. Cusickii* Greenm. Erythea 7: 116. 1899.

OXYTROPIS CAMPESTRIS (L.) DC. var. *Rydbergii* (A. Nels.) comb. nov. *O. Rydbergii* A. Nels. Univ. Wyo. Publ. Bot. 1: 117. 1926.

VIOLA PALUSTRIS L. var. *brevipes* (Baker) comb. nov. *V. palustris* L. subsp. *brevipes* Baker, Madroño 3: 235. 1936.